

REMARKS

In the Final Office Action, the Examiner noted that claims 1-23 are pending in the application, and that claims 1-23 are rejected. By this response, claims 1, 5-6, 8-9, 11, 13, 15, 17-18, and 20 are amended. In view of the above amendments and the following discussion, Applicants submit that none of the claims now pending in the application are anticipated under the provisions of 35 U.S.C. §102. Thus, Applicants believe that all of these claims are now in condition for allowance.

I. Objections

The Examiner objected to claim 18, stating that "the use of the word 'for' in describing what actions the different sections perform renders the claim indefinite. It is unclear if the action is performed or not by the section." (Final Office Action, p. 2). The Examiner cited MPEP 2111.04, which states:

Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure. However, examples of claim language, although not exhaustive, that may raise a question as to the limiting effect of the language in a claim are:

- (A) "adapted to" or "adapted for" clauses;
- (B) "wherein" clauses; and
- (C) "whereby" clauses.

(Final Office Action, p. 5). The Examiner concluded that "the intended sections that follow the 'for's in claim 18 [are] not limiting of the claims and therefore the only patentable sections of claim 18 are a system comprising an input section, an augmentations section, and a translation section." (Final Office Action, p. 5).

The first part of MPEP 2111.04 refers to "claim language that suggests or makes optional but does not require steps to be performed" as being not limiting of claim scope. Since Applicants' claim 18 is an apparatus claim, and not a method claim, there are no "steps to be performed," so this language does not apply to Applicants' claim 18. The second part of MPEP 2111.04 refers to "claim language that does not limit a claim to a particular structure" as being not limiting of claim scope. Claim 18 is limited to a particular structure comprising an input section, an

augmentation section in communication with the input section, and a translation section in communication with the augmentation section. In the interests of furthering prosecution, claim 18 has been amended to explicitly state the cooperation among the sections. Thus, claim 18 fully comports with MPEP 2111.04.

Furthermore, the preposition “for” is very commonly used in claims to relate functional language and structural elements. See Robert C. Faber, Landis on Mechanics of Patent Claim Drafting, §30 (4th ed. 1998) (listing “for” as an example of “straightforward, noncontroversial functional or cooperative statements” and as being “very commonly used.”). Numerous CCPA and Federal Circuit decisions have specifically approved of the use of functional limitations in claims and have assigned such functional limitations patentable weight. See Irah H. Donner, Patent Prosecution Practice and Procedure Before the U.S. Patent Office 726-732 (3d ed. 1999). Notably, the CCPA specifically held a functional limitation to have patentable weight. See In re Land, 151 USPQ 621, 635-36 (CCPA 1966). See also In re Ludtke, 169 USPQ 563, 566 (CCPA 1971) (stating that there is nothing prohibiting the use of functional language in a claim). The Federal Circuit has specifically held a claim to be nonobvious over the prior art based on a functional limitation, where the only difference between the claim and the prior art was the functional limitation. See In re Mills, 16 USPQ2d 1430, 1431-32 (Fed. Cir. 1990). The MPEP explicitly mirrors the aforementioned case law. See MPEP 2173.05(g) (stating “[a] functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.”). Thus, the clauses in claim 18 proceeded by the “for” preposition are permissible functional features and must be attributed patentable weight.

Therefore, Applicants contend that claim 18 is definite and fully satisfies the provisions of 35 U.S.C. §112. Accordingly, Applicants respectfully request that the objection to claim 18 be withdrawn.

II. Rejection of Claims Under 35 U.S.C. §102

The Examiner rejected claims 1-23 as being anticipated by Bening (United States patent 6,684,381, issued January 27, 2004). In response to the previous Office Action, Applicants argued that Bening does not teach or suggest translation of an electronic design of an integrated circuit into a circuit description language. In the present Final Office Action, the Examiner disagreed and noted that the feature argued by Applicants is not recited in the rejected claims. (Final Office Action, p. 4). The rejection is respectfully traversed.

Bening teaches providing HDL regular expression support for module iteration and interconnection. In particular, regular expressions are used in a preprocessing process to automate generation of repetitive HDL code. (See Bening, Abstract). Bening defines "regular expressions" as expressions that are used to match text using special characters. (Bening, col. 4, lines 18-21). The regular expressions are embedded within an HDL description to accomplish module iteration (instantiation) and interconnection. (Bening, col. 4, lines 37-40). The regular expressions are "elaborated" or expanded to perform the instantiation and interconnection. (Bening, col. 5, lines 53-60).

Bening, however, does not teach or suggest each and every element of Applicants' claim 1. Namely, Bening does not teach or suggest translating an electronic design representation of an integrated circuit into a circuit description language representation. Applicants have amended claim 1 to explicitly state translation between different circuit representations, that is, translation from the electronic design representation to the circuit description language representation. In Bening, there is no translation between different circuit representations. Rather, Bening expands particular expressions in HDL code into additional HDL code. Expanding expressions in HDL code does not teach or suggest translation of an electronic design representation of an integrated circuit into a circuit description language representation.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim."

Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 221 USPQ 481,

485 (Fed. Cir. 1984). Since Bening does not teach translating an electronic design representation of an integrated circuit into a circuit description language representation, Bening does not teach each and every element of Applicants' claim 1 as arranged therein.

Independent claims 6, 11, 13, 15, and 18, each recite, among other features, translation or production of a circuit description language representation from an electronic design representation of an integrated circuit. For the reasons discussed above, Applicants contend that Bening also fails to anticipate claims 6, 11, 13, 15, and 18. Independent claim 21 recites steps of identifying a plurality of ports that require connection, associating with a first port a hierarchically independent indication that a first port is connected to a second port, and connecting the first port to the second port in a circuit description language representation using the hierarchically independent indication. Bening does not teach or suggest such features. In particular, Bening does not teach or suggest connection of ports in a circuit description language representation using a hierarchically independent indication. Thus, Bening also fails to anticipate claim 21.

Claims 2-5, 7-10, 12, 14, 16-17, 19-20, and 22-23 depend, either directly or indirectly, from claims 1, 6, 11, 13, 15, 18, and 21 and recite additional features therefor. Since Bening does not anticipate Applicants' invention as recited in claims 1, 6, 11, 13, 15, 18, and 21, dependent claims 2-5, 7-10, 12, 14, 16-17, 19-20, and 22-23 are also not anticipated and are allowable.

In view of the foregoing, Applicants contend that claims 1-23 are not anticipated by Bening and, as such, fully satisfy the requirements of 35 U.S.C. §102. As such, Applicants respectfully request that the rejection of such claims be withdrawn.

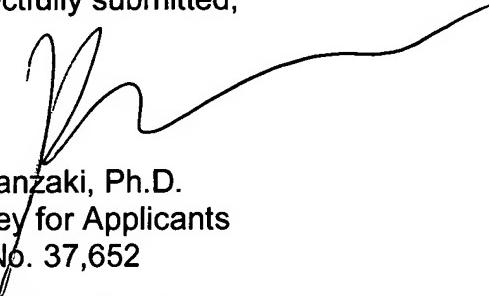
CONCLUSION

Thus, Applicants submit that none of the claims presently in the application are anticipated under the provisions of 35 U.S.C. §102. Consequently, Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the maintenance of any adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Kim Kanzaki at (408) 879-6149 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

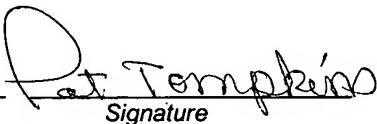
All claims should be now be in condition for allowance and a Notice of Allowance is respectfully requested.

Respectfully submitted,


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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on June 14, 2006.

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